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107-123 High Street, Belmont

Town Planning Report

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TABLE OF CONTENTS

1 INTRODUCTION

Acoustic Logic has been engaged by Up Property Pty Ltd to prepare an acoustic report for the mixed-use development located at 107-123 High Street, Belmont. The assessment addresses external noise intrusion associated with the adjoining road network and surrounding land uses, in addition to determining allowable noise emission goals of mechanical plant. The assessment is based on the following documents.

Table 1 – Referenced Documents

Company	Document	Reference	Date
Clarke Hopkins Clarke	Town Planning Drawings	Project Number: 230114 Revision: TP	16/07/2025
Victorian Planning Provisions	Clause 58.04-3	-	2017
-	Australian Standard AS/NZS 2107:2016	-	2016
EPA Victoria	EPA Noise Protocol	1826.5	09/2025

2 SITE DESCRIPTION

The proposed development is located at 107-123 High Street, Belmont. The subject site consists of two main buildings: apartments to the northwest and townhouses to the southeast.

The apartment building consists of 7 storeys with 2 storeys of basement parking, medical centre and commercial tenancy on basement level 1, parking and commercial tenancies on ground floor, a gym, residential amenities and open communal space on level 1, and apartments from ground floor to level 7.

The townhouses consist of ground floor parking, with three townhouses containing 2 storeys and 2 townhouses containing 3 storeys.

The subject development is bounded as follows and shown in Figure 1:

1. High Street to the west.
2. Wyuna Parade to the northeast.
3. Waterloo Street running in between the apartment building and townhouses.
4. A KFC with rooftop plant and drive-through 30m to the south.
5. An El Jannah with rooftop plant 35m to the north.
6. Commercial tenancies 20m to the west of the proposed apartments.
7. Residential tenancies directly to the east of the townhouses.

Figure 1: Subject site and surrounding environments (source: Google Maps™)

2.1 LOCAL NOISE SOURCES

Acoustic Logic attended the site on multiple occasions during the day period. The following observations were made with respect to the subject site and surrounding existing noise sources:

1. Traffic noise is associated with the surrounding roadways, most notably from High Street to the west.

2. There is a KFC at 129a High Street, Belmont to the south of site, which contains a drive through service and associated rooftop mechanical plant – refer *Appendix 1 – Site Photos*. The following comments are provided;

KFC Drive Through

a. Noise associated with the drive-through includes vehicles within the drive through and the intercom speaker.

b. The glazing and walls of the development from concrete or lightweight wall materials will be treated to address noise from the drive through and intercom to AS2107 as outlined in Section 5.3

c. Drive-through noise was measured to be minimal where standard constructions are sufficient to address noise impacts.

KFC Rooftop Mechanical Plant

a. The general mechanical plant associated with the KFC is located on the northeastern side of the building shown in *Appendix 1 – Image 1*

b. KFC plant was measured on site at elevated height and was measured to be tonal.

   i. The glazing and walls of the development from concrete or lightweight wall materials will be treated to address noise from the rooftop mechanical plant to AS2107 as outlined in Section 5.3

El Jannah Rooftop Mechanical Plant

3. There is an El Jannah at 85 High Street, Belmont to the north of site, which contains associated rooftop mechanical plant – refer *Appendix 1 – Site Photos*. The following comments are provided;

   a. Noise associated with the El Jannah was generally not measurable at the development site.

   b. The general mechanical plant associated with the El Jannah is located centrally on the rooftop of the building shown in *Appendix 1 – Image 2*

      i. The glazing and walls of the development from concrete or lightweight wall materials will be treated to address noise from the rooftop mechanical plant to AS2107 as outlined in Section 5.3

3 ENVIRONMENTAL NOISE DESCRIPTORS

Environmental noise constantly varies in level, due to fluctuations in local noise sources including road traffic. Accordingly, a 15-minute measurement interval is normally utilised. Over this period, noise levels are monitored on a continuous basis and statistical and integrating techniques are used to determine noise description parameters.

In the case of environmental noise, three principle measurement parameters are used, namely L_{10}, L_{90} and L_{eq}.

The L_{10} and L_{90} measurement parameters are statistical levels that represent the average maximum and average minimum noise levels respectively, over the measurement intervals.

The L_{10} parameter is commonly used to measure noise produced by a particular intrusive noise source since it represents the average of the loudest noise levels produced by the source.

Conversely, the L_{90} level (which is commonly referred to as the background noise level) represents the noise level heard in the quieter periods during a measurement interval. The L_{90} parameter is used to set the allowable noise level for new, potentially intrusive noise sources since the disturbance caused by the new source depends on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the L_{90} level.

The L_{eq} parameter represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the measurement period. L_{eq} is important in the assessment of traffic noise impact as it closely corresponds with human perception of a changing noise environment; such is the character of industrial noise.

4 NOISE LEVEL MEASUREMENTS

4.1 TRAFFIC NOISE MEASUREMENTS

Traffic noise measurements were conducted around the proposed development to determine existing traffic noise levels. Noise level measurements impacted by elevated wind and rain was omitted from review.

4.1.1 Measurement Locations and Time of Measurements

Unattended noise level measurements were conducted at **Measurement Location B** (refer Figure 1 for measurement location) on the southern corner of the subject site. The monitor was installed on a boom lift elevated at 10.5m above grade. The measurements were conducted between 15 January and 22 January 2026 and were in free field.

Attended noise level measurements were conducted at the following locations (refer Figure 1 for measurement locations):

Measurement Location 1: Fronting High Street between 2:10pm – 2:25am on 22 January 2026. Measurements were conducted at 1.5m above grade and were in free field.

Measurement Location 5: Fronting Wyuna Parade between 1:50pm – 2:05pm on 22 January 2026. Measurements were conducted at 1.5m above grade and were affected by façade reflection.

4.1.2 Measurement Equipment

Unattended noise monitoring was conducted using an Ngara Noise Monitor. The noise monitor was programmed to store 15-minute statistical noise levels through the monitoring period. Equipment was calibrated at the beginning and the end of the measurements using a Rion NC-75 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

Attended noise measurements were conducted using a Norsonic Sound Level Analyser. The equipment was calibrated at the beginning and the end of the measurement using a Rion NC-74 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

4.2 BACKGROUND NOISE MEASUREMENTS

Background noise measurements were conducted around the proposed development to determine existing background noise levels. Noise level measurements impacted by elevated wind and rain was omitted from review.

4.2.1 Measurement Locations and Time of Measurements

Unattended noise level measurements were conducted at **Measurement Location A** (refer Figure 1 for measurement location and *Appendix 1 – Image 1*). The monitor was installed 4.5m above grade, on a shipping container fronting the southern carpark. The measurements were conducted between 15 January and 22 January 2026 and were undertaken in free field.

4.2.2 Measurement Equipment

Unattended noise monitoring was conducted using a Rion NL42 Noise Monitor. The noise monitor was programmed to store 15-minute statistical noise levels through the monitoring period. Equipment was calibrated at the beginning and the end of the measurements using a Rion NC-75 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

4.3 KFC DRIVE THROUGH NOISE AND ROOFTOP PLANT NOISE MEASUREMENTS

Figure 2 below indicates the development site, rooftop plant equipment and drive through associated with KFC.

Noise measurements from the KFC drive-through were undertaken for typical movement and intercom noise with KFC in between road traffic noise in the location outlined below.

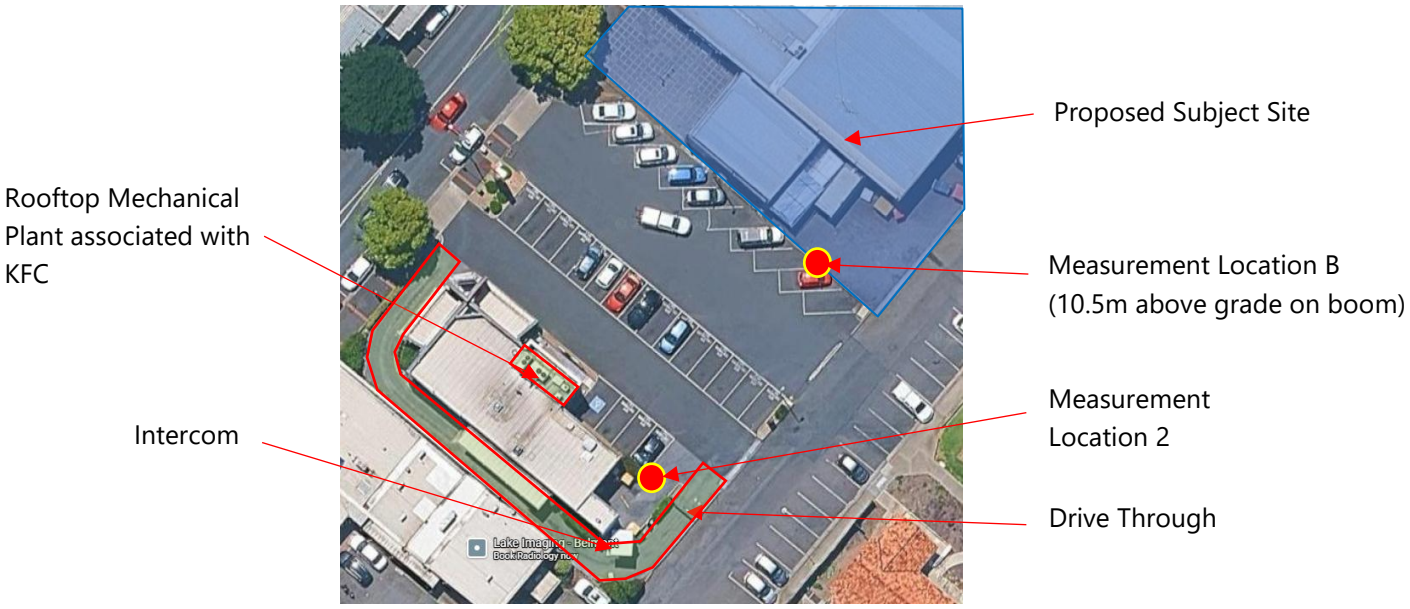


Figure 2: KFC Mechanical Plant and Drive-Through

4.3.1 Measurement Locations and Time of Measurements

Unattended noise level measurements were conducted at **Measurement Location B** (refer Figure 1 for measurement location) on the southern corner of the subject site. The monitor was installed on a boom lift elevated at 10.5m above grade. The measurements were conducted between 15 January and 22 January 2026 and were in free field.

Attended noise level measurements were conducted at the following locations (refer Figure 1 for measurement locations):

Measurement Location 2: Approximately 7m away from the KFC intercom, with an unobstructed view of the intercom and drive-through circuit. Measurements were conducted on 22 January 2026 at 3:05pm. Measurements were conducted at 1.5m above grade and were in free field.

4.3.2 Measurement Equipment

Unattended noise monitoring was conducted using an Ngara Noise Monitor. The noise monitor was programmed to store 15-minute statistical noise levels through the monitoring period. Equipment was calibrated at the beginning and the end of the measurements using a Rion NC-75 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

Attended noise measurements were conducted using a Norsonic Sound Level Analyser. The equipment was calibrated at the beginning and the end of the measurement using a Rion NC-74 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

4.4 EL JANNAH ROOFTOP PLANT NOISE MEASUREMENTS

Figure 3 below indicates the development site and rooftop plant equipment associated with El Jannah.

Figure 3: El Jannah Mechanical Plant

4.4.1 Measurement Locations and Time of Measurements

Attended noise level measurements were conducted at the following locations (refer Figure 1 for measurement locations):

Measurement Location 3: Approximately 11m away from the El Jannah rooftop plant, with an unobstructed view of the equipment. Measurements were conducted on 22 January 2026 at 2:25pm. Measurements were conducted at 1.5m above grade and were in free field.

Measurement Location 4: Approximately 12m from the northern boundary of the subject site, 30m away from the El Jannah rooftop plant, with an unobstructed view of the equipment. Measurements were conducted on 22 January 2026 at 2:30pm. Measurements were conducted at 1.5m above grade and were in free field.

4.4.2 Measurement Equipment

Attended noise measurements were conducted using a Norsonic Sound Level Analyser. The equipment was calibrated at the beginning and the end of the measurement using a Rion NC-74 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

4.5 MEASURED NOISE LEVELS

The tables below detail the measured noise levels obtained from the unattended and attended noise measurements.

Table 2 – Unattended Traffic Noise Level Measurements (Location B)

Location	Period	Measured Noise Level $L_{eq,1hr}$ dB(A)
Location B	Day (07:00 – 22:00)	57
	Night (22:00 – 07:00)	57

Table 3 – Unattended KFC Rooftop Plant Noise Level Measurements (Location B)

Location	Date	Time	Measured Noise Level $L_{eq,15min}$ dB(A)
Location B	19/01/2026	12:45am – 1:00am	55[1,2]

Note 1: Measured noise levels presented is noise predominantly associated with KFC rooftop plant during a break in traffic flow.
Note 2: a 5dB tonality penalty has been applied to the measurements

Table 4 – Unattended Background Noise Level Measurements (Location A)

Period	Time	Measured Noise Level $L_{90,\ period}$ dB(A)
Day	7am – 6pm (Mon – Sat)	48
Evening	6pm – 10pm (Mon – Sat) 7am – 10pm (Sun)	47
Night	10pm – 7am	41

Table 5 – Attended Traffic Noise Level Measurements

Measurement Location	Date	Time	Measured Noise Level $L_{eq,\ 15min}$ dB(A)
Location 1	22/01/2026	2:10pm – 2:25pm	64
Location 5	22/01/2026	1:50pm – 2:05pm	55[1]

Note 1: Measured noise levels presented have been corrected -2.5dB(A) for façade reflection.

Table 6 – Attended KFC Drive-Through Noise Level Measurements

Measurement Location	Date	Time	Measured Noise Level L_{eq} dB(A)
Location 2	22/01/2026	3:05pm	55

Note 1: Measurements were conducted of noise predominantly associated with KFC drive through vehicle noise during a break in traffic flow.

Table 7 – Attended KFC Intercom Noise Level Measurements

Measurement Location	Date	Time	Measured Noise Level L_{eq} dB(A)
Location 2	22/01/2026	3:05pm	60

Note 1: Measurements were conducted of noise predominantly associated with KFC drive through intercom noise during a break in traffic flow.

Table 8 – Attended El Jannah Rooftop Plant Noise Level Measurements

Measurement Location	Date	Time	Measured Noise Level L_{eq} dB(A)
Location 3	22/01/2026	2:25pm	Just perceptible in ambient of 52
Location 4	22/01/2026	2:30pm	Inaudible in ambient of 52 Resultant noise of <42[2]

Note 1: Measurements were conducted of noise predominantly associated with El Jannah rooftop plant, during a break in traffic flow.
Note 2: Equipment noise from the rooftop plant was inaudible at an ambient of 52dB(A) at Location 4, 12m northeast of the subject site, resulting in the contribution from the plant equipment to be at least 10dB(A) less resulting in a contribution of 42dB(A) from plant equipment

5 ASSESSMENT CRITERIA

5.1 STANDARD D16 AT CLAUSE 58.04-3

Standard D16 of Clause 58.04-3 of the Planning Scheme notes the following which reflects the requirements of the Better Apartment Design Standards:

Standard D16

Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings.

The layout of new dwellings and buildings should minimise noise transmission within the site.

Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts, building services, non-residential uses, car parking, communal areas and other dwellings.

New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from off-site noise sources.

Buildings within a noise influence area specified in Table D3 should be designed and constructed to achieve the following noise levels:

- Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.
- Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.

Buildings, or part of a building screened from a noise source by an existing solid structure, or the natural topography of the land, do not need to meet the specified noise level requirements.

Noise levels should be assessed in unfurnished rooms with a finished floor and the windows closed.

Table D3 Noise influence area

Noise Source	***Noise influence area***
Zone interface	
Industry	*300 metres from the industrial 1, 2 and 3 zone boundaries*
Roads	
Freeways, tollways and other roads carrying 40,000 Annual Average Daily Traffic Volume	*300 metres from the nearest trafficable lane*
Railways	
Railway servicing passengers in Victoria	*80 metres from the centre of the nearest track*
Railway servicing freight outside Metropolitan Melbourne	*80 metres from the centre of the nearest track*
Railway servicing freight in Metropolitan Melbourne	*135 metres from the centre of the nearest track*

Note: The noise influence area should be measured from the closest part of the building to the noise source.

Decision guidelines

Before deciding on an application, the responsible authority must consider:

- The design response.
- Whether it can be demonstrated that the design treatment incorporated into the development meets the specified noise levels or an acoustic report by a suitably qualified consultant submitted with the application.
- Whether the impact of potential noise sources within a development have been mitigated through design, location and siting.
- Whether the layout of rooms within a dwelling mitigates noise transfer within and between dwellings.
- Whether an alternative design meets the relevant objectives having regard to the amenity of the dwelling and the site context.

Based on these conditions, the subject site has been reviewed as follows:

1. The development is <u>not</u> within 300m of an industrial zone.
2. The development is <u>not</u> within 300m of a freeway or road carrying an AADT >40,000.
3. The development is <u>not</u> within 80m of railway servicing passengers.

Based on the above all traffic noise will be designed in accordance with Australian Standards AS/NZS 2107:2016.

5.2 AS/NZS 2107:2016

Australian Standard AS/NZS2107:2016 *"Recommended Design Sound Levels and Reverberation Times for Building Interiors"* sets out recommended design sound levels for residential developments depending on locality to minor or major roads. Table 9 below details the criterion adopted for parts of this development impacted by noise from other surrounding roads.

Table 9 – Internal Noise Criteria - Traffic

Location	Required Internal Noise Level[1]	
	dB(A) $L_{eq\ 1hr}$ (7am – 10pm)	**dB(A) $L_{eq\ 1hr}$ (10pm – 7am)**
Bedrooms	45[2]	40
Living Areas	45	N/A

Note 1: Assessment is based on apartments suitably furnished ready for occupation.
Note 2: Bedrooms assessed as living rooms outside 10pm-7am.

5.3 NOISE FROM KFC AND EL JANNAH MECHANICAL PLANT AND DRIVE THROUGH

Noise associated with commercial use of KFC and El Jannah, i.e. plant noise and drive-through use, will be assessed to the following criteria which is based on the Design Sound Level requirements of AS2107, assuming that external windows are closed. Provided that noise from commercial activity will be more sensitive to the occupants than traffic noise, the lower range of AS2107 has been adopted.

Table 10 – Internal Noise Level Criteria from El Jannah, KFC and Drive-Through

Location	Design Internal Noise Level[2]	
	Day dB(A) $L_{eq,1hr}$ (7am – 10pm)	**Night dB(A) $L_{eq,1hr}$ (10pm – 7am)**
Bedrooms	35[1]	30
Living rooms	35	N/A

Note 1: Bedrooms are assessed as living areas outside the night-time period of 10pm to 7am.
Note 2: Assessment is based on apartments suitably furnished ready for occupation with façade (external windows and doors) closed.

Noise associated with commercial use of El Jannah was not perceptible at the northeastern boundary of the development and therefore requires no further assessment.

5.4 ENVIRONMENTAL NOISE EMISSIONS CRITERIA

To ensure that noise emissions from the proposed development site do not impact adversely on the amenity of the proposed development residents and surrounding noise sensitive areas, the proposed development should be designed to comply with the EPA Noise Protocol – Part 1.

5.4.1 Zoning Level

The 'Zoning' level is determined by the Influencing Factor (IF) and is calculated by the formula and the 'Zoning Level versus Influencing Factor' graph nominated in Section 1.1 of the EPA Noise Protocol and VicPlan Mapping. The IF is calculated from the proportion of industrial and commercial land around noise sensitive areas. Review of the surrounding area indicates an IF of approximately **0.29** which results in the zoning limits detailed in Table 11 below.

Table 11 - Zoning Levels

Period	Zoning Level dB(A)
Day	55
Evening	49
Night	44

5.4.2 EPA Noise Protocol – Part 1

Table 12 below details the assessment criteria based on both the zoning levels and the measured background noise levels.

Table 12 – Noise Limits

Period	Background dB(A) $L_{90,Period}$	Zoning limit	Classification	Project Noise Limits dB(A) L_{eq}
Day Monday – Saturday (7am – 6pm)	48	55	Neutral	**55**
Evening Monday – Saturday (6pm – 10pm) Sunday (7am – 10pm)	47	49	High	**50**
Night Monday – Friday (10pm – 7am)	41	44	Neutral	**44**

6 EVALUATION OF EXTERNAL NOISE INTRUSION

6.1 RECOMMENDED ACOUSTIC TREATMENT

Internal noise levels will primarily be as a result of noise transfer through the windows, doors and roof as these are relatively light building elements that offer less resistance to the transmission of sound. Walls that are proposed to be heavy masonry elements will not require upgrading. The predicted noise levels through the windows, doors and roof are discussed below. The predicted noise levels have been based on the expected level and spectral characteristics of the external noise, the area of building elements exposed to external noise, the absorption characteristics of the rooms and the noise reduction performance of the building elements.

Glazing / façade treatment was determined based on the following:

- Traffic noise levels measured around the subject site.
- Transmission loss of façade element.
- Noise correction based on the distance between the noise source and the nearest façade of subject development.

The constructions set out below are necessary for the satisfactory control of external noise and to achieve compliance with the internal noise level criteria set out in Section 4.

6.1.1 Recommended Glazing

The glass thicknesses shown in the schedule do not consider thermal, structural, safety or any other requirements other than acoustic requirements and thus may require upgrading in some instances. In these instances, increasing the glass thickness beyond the acoustic requirement will be acceptable. Where the glazing thickness has not been specified, standard glazing will be acceptable.

The table below details the minimum performance requirements for the glazing assembly installed. Where open-able windows or sliding glass doors are installed, the total R_w performance of the system shall not be lower than the values listed. It is noted that the system supplied shall meet the overall minimum R_w ratings nominated. If an alternative system is proposed the system shall be reviewed and will require approval by a suitably qualified acoustic consultant to ensure that the proposed system is acceptable and will ensure compliance with the nominated internal noise design criteria.

Table 13 - Minimum External Glazing Requirements / Performance

Location	Required Glazing Construction[2]	Minimum R_w of Installed System	Acoustic Seals[1]
See *Appendix 2 - Glazing Markup*	6mm or 6/12/6mm IGU	29	Yes
	8mm or 8/12/8mm IGU	31	Yes
	11.52mm or 6/12/11.52mm IGU	35	Yes

Note 1 – Note that mohair seals in windows and doors are not acceptable. Seals in these instances shall be equal to Schlagel Q-Ion.
Note 2 – Glazing as nominated or alternative as approved by a suitable qualified acoustic consultant.

6.1.2 External Walls

Apartment external walls incorporating concrete or masonry construction will not require further acoustic treatment. Lightweight external walls are recommended to be constructed as outlined in Appendix 2 and per Figure 4 below generally.

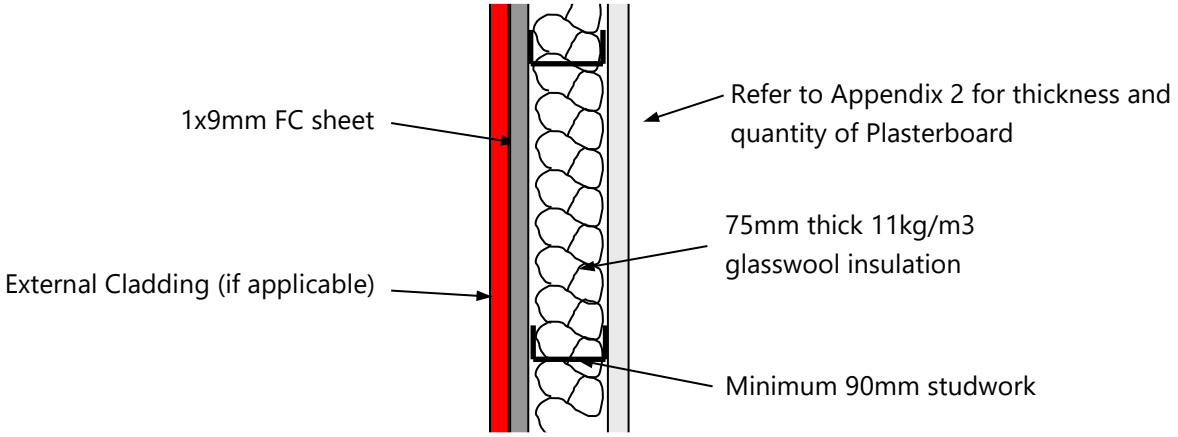


Figure 4 – Lightweight wall construction

Penetrations in walls must be sealed gap free with a flexible sealant. Any ventilation openings in should be acoustically treated to maintain the acoustic performance of the external wall construction.

6.1.3 Roof/Ceiling

The apartments will generally have concrete roof which will not require further acoustic treatment. Where it is proposed to be a lightweight roof, additional treatment will be required.

The townhouses are proposed to have lightweight constructions and will require the following treatment as outlined in Appendix 2 and per Figure 5 below generally.

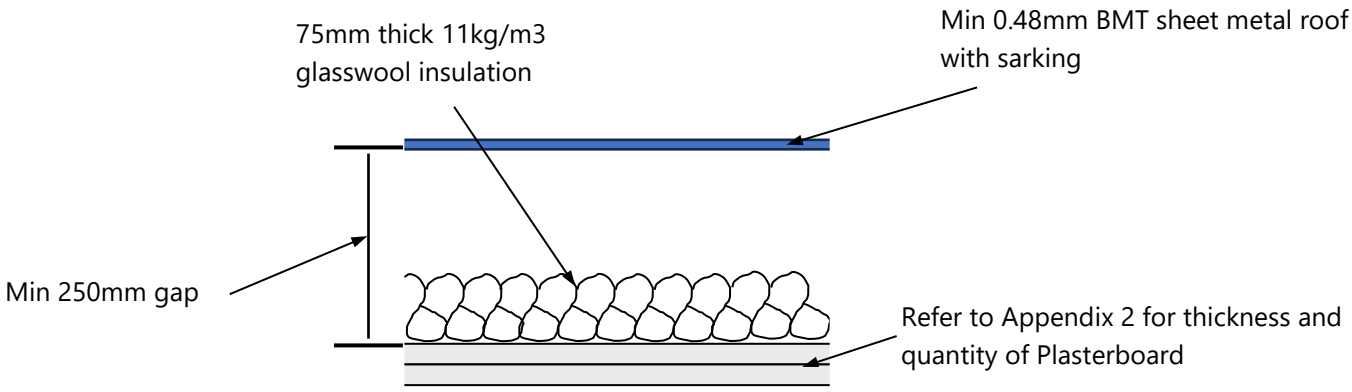


Figure 5 – Lightweight roof construction (Townhouses)

Penetrations in ceilings (such as for light fittings etc.) must be sealed gap free with a flexible sealant. Any ventilation openings in the ceilings would need to be acoustically treated to maintain the acoustic performance of the ceiling construction.

7 MECHANICAL PLANT AND EQUIPMENT SERVING PROPOSED DEVELOPMENT

It is noted that plant and equipment selections/design have not yet been finalised. Therefore, to ensure amenity for future residents and nearby noise sensitive receivers is preserved, mechanical plant and equipment shall be designed to ensure compliance with the EPA Noise Protocol – Part 1. This can be achieved using standard acoustic treatment such as internally lined ductwork, acoustic louvres, acoustic attenuators, variable speed drives, and vibration isolation mounts.

8 CONCLUSION

The report presents an assessment of external noise intrusion and sets noise emission limits at the proposed mixed-use development of 107-123 High Street, Belmont. The report provides recommendations to ensure compliance with the criteria nominated in Section 5 and presents criteria applicable to the development with respect to future mechanical plant and equipment serving the development.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Pty Ltd
Ben Mcclymont

APPENDIX 1 – SITE PHOTOS

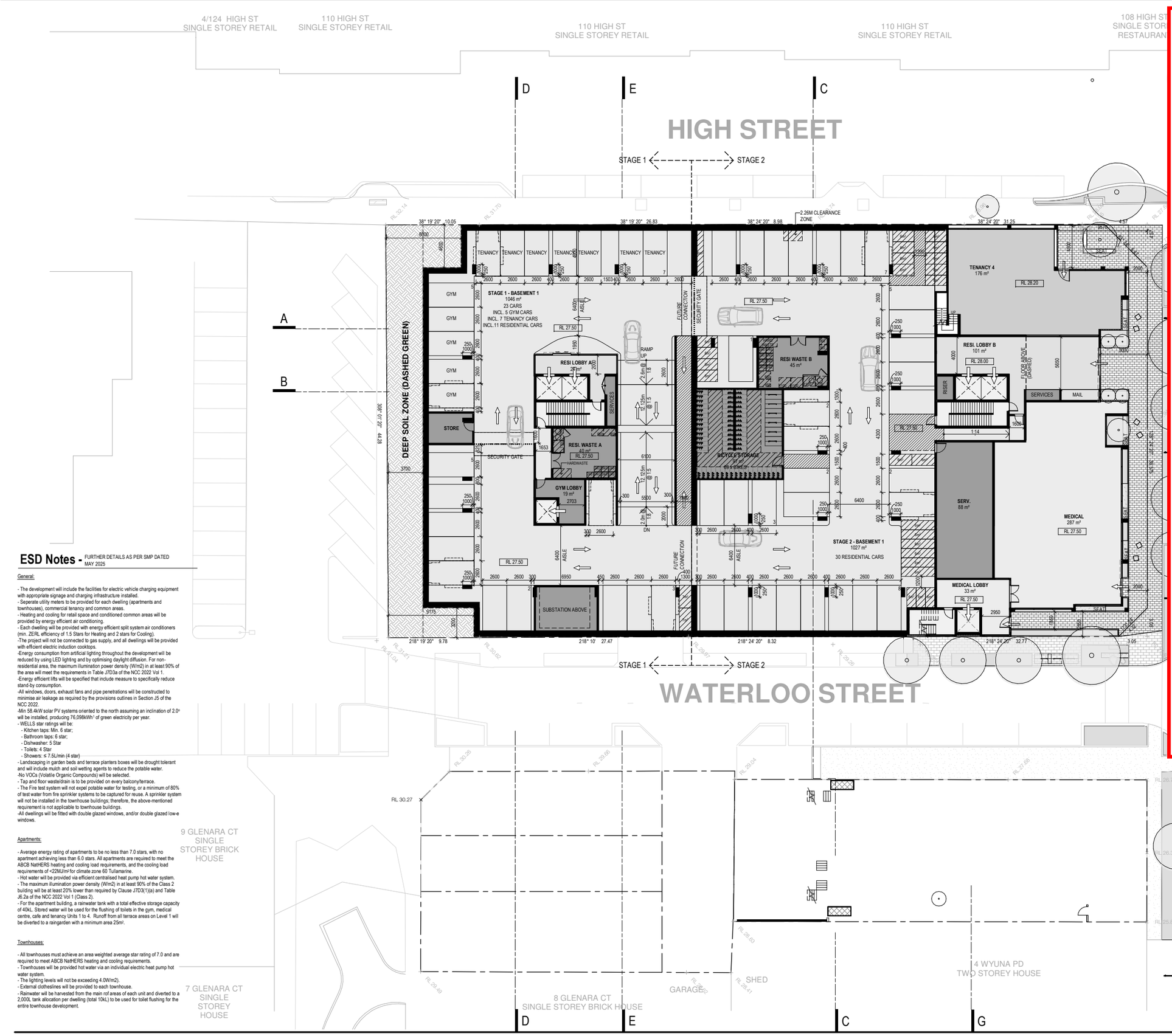
Image 1: Location B Unattended Monitor, Elevated on Boom Lift – View of KFC Rooftop plant

Image 2: View of El Jannah Rooftop plant to the northeast

Image 3: View of High Street to the north

Image 4: View of Wyuna Parade to the east

APPENDIX 2 – GLAZING MARKUP



ESD Notes - FURTHER DETAILS AS PER SMP DATED MAY 2025

General:

- The development will include the facilities for electric vehicle charging equipment with appropriate signage and charging infrastructure installed.
- Seperate utility meters to be provided for each dwelling (apartments and townhouses), commercial tenancy and common areas.
- Heating and cooling for retail space and conditioned common areas will be provided by energy efficient air conditioning.
- Each dwelling will be provided with energy efficient split system air conditioners (min. ZERL efficiency of 1.5 Stars for Heating and 2 stars for Cooling).
-The project will not be connected to gas supply, and all dwellings will be provided with efficient electric induction cooktops.
-Energy consumption from artificial lighting throughout the development will be reduced by using LED lighting and by optimising daylight diffusion. For non-residential area, the maximum illumination power density (W/m2) in at least 90% of the area will meet the requirements in Table J7D3a of the NCC 2022 Vol 1.
-Energy efficient lifts will be specified that include measure to specifically reduce stand-by consumption.
-All windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions outlines in Section J5 of the NCC 2022.
-Min 58.4kW solar PV systems oriented to the north assuming an inclination of 2.0° will be installed, producing 76,098kWh⁻¹ of green electricity per year.
- WELLS star ratings will be:
  - Kitchen taps: Min. 6 star;
  - Bathroom taps: 6 star;
  - Dishwasher: 5 Star
  - Toilets: 4 Star
  - Showers: ≤ 7.5L/min (4 star)
- Landscaping in garden beds and terrace planters boxes will be drought tolerant and will include mulch and soil wetting agents to reduce the potable water.
-No VOCs (Volatile Organic Compounds) will be selected.
- Tap and floor waste/drain is to be provided on every balcony/terrace.
- The Fire test system will not expel potable water for testing, or a minimum of 80% of test water from fire sprinkler systems to be captured for reuse. A sprinkler system will not be installed in the townhouse buildings; therefore, the above-mentioned requirement is not applicable to townhouse buildings.
-All dwellings will be fitted with double glazed windows, and/or double glazed low-e windows.

Apartments:

- Average energy rating of apartments to be no less than 7.0 stars, with no apartment achieving less than 6.0 stars. All apartments are required to meet the ABCB NatHERS heating and cooling load requirements, and the cooling load requirements of <22MJ/m² for climate zone 60 Tullamarine.
- Hot water will be provided via efficient centralised heat pump hot water system.
- The maximum illumination power density (W/m2) in at least 90% of the Class 2 building will be at least 20% lower than required by Clause J7D3(1)(a) and Table J6.2a of the NCC 2022 Vol 1 (Class 2).
- For the apartment building, a rainwater tank with a total effective storage capacity of 40kL. Stored water will be used for the flushing of toilets in the gym, medical centre, cafe and tenancy Units 1 to 4. Runoff from all terrace areas on Level 1 will be diverted to a raingarden with a minimum area 25m².

Townhouses:

- All townhouses must achieve an area weighted average star rating of 7.0 and are required to meet ABCB NatHERS heating and cooling requirements.
- Townhouses will be provided hot water via an individual electric heat pump hot water system.
- The lighting levels will not be exceeding 4.0W/m2).
- External clotheslines will be provided to each townhouse.
- Rainwater will be harvested from the main roof areas of each unit and diverted to a 2,000L tank allocation per dwelling (total 10kL) to be used for toilet flushing for the entire townhouse development.

AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

- 6mm or 6/12/6mm IGU
- 8mm or 6/12/8mm IGU
- 11.52mm or 6/12/11.52mm IGU

External Lightweight Wall Construction

- 1x9mm FC sheet / 90mm stud with 75mm 11kg/m3 wool insulation / 1x13mm Plasterboard
- 1x9mm FC sheet / 90mm stud with 75mm 11kg/m3 wool insulation / 2x13mm Plasterboard

External Lightweight Roof Construction

- Min 0.48mm BMT sheet metal roof with sarking / Min 300mm ceiling void with 75mm 11kg/m3 wool insulation / 1x13mm Plasterboard
- Min 0.48mm BMT sheet metal roof with sarking / Min 300mm ceiling void with 75mm 11kg/m3 wool insulation / 2x13mm Plasterboard

General Notes

Apartment external walls that incorporate concrete / masonry / blockwork will not require further treatments acoustically.

Windows to contain acoustic seals which shall be Q-lon seals or equal. Mohair seals are not acceptable

Awning windows and hinged doors shall be installed with multi-point locking system.

Bi-parting sliding doors not acceptable acoustically.

Roof constructions to be of concrete unless stated otherwise.

TOWN PLANNING

Clarke Hopkins Clarke

High Street, Belmont Apartments
107-123 HIGH STREET, BELMONT VIC 3216
Project No. 230114

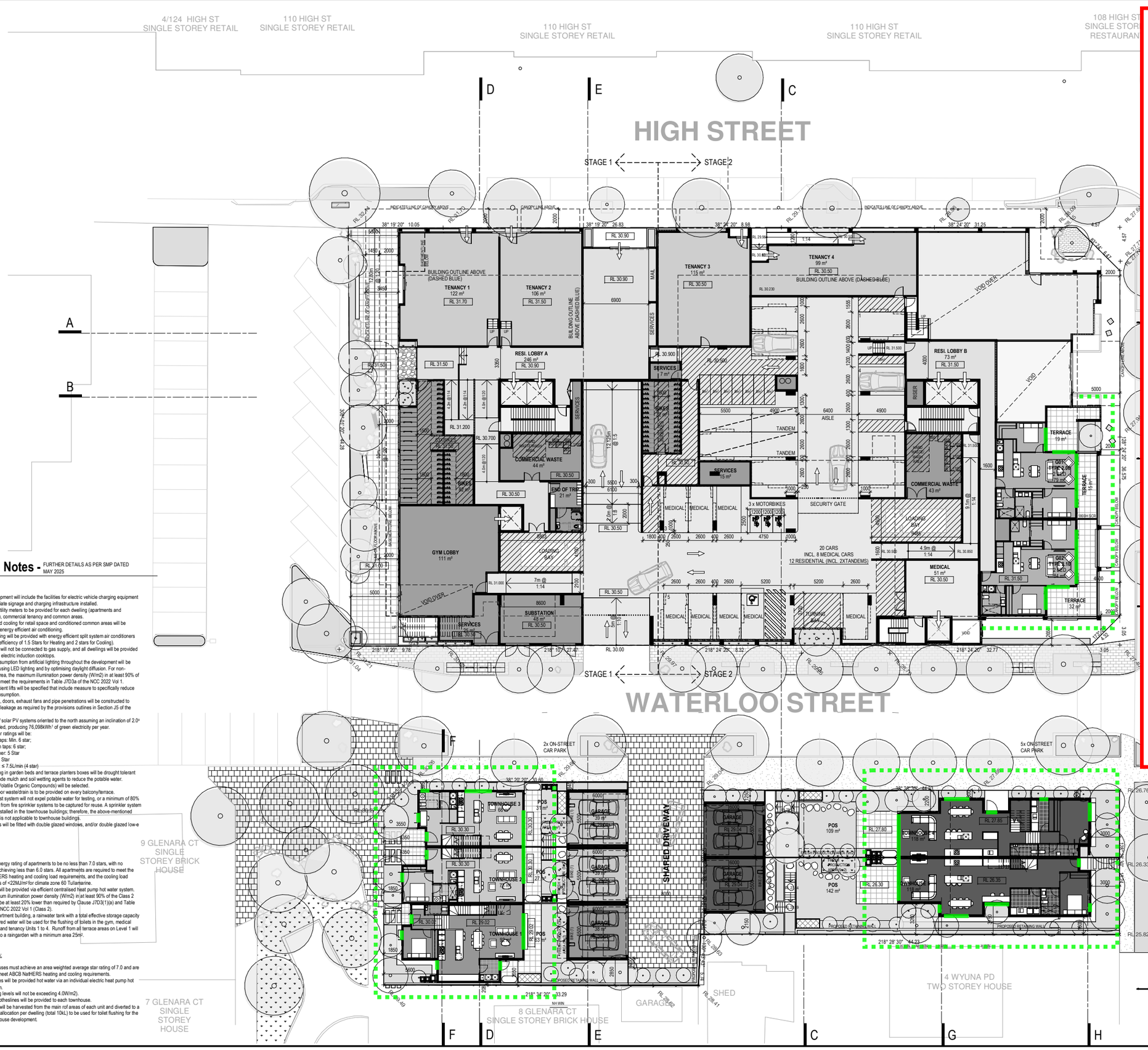
www.chc.com.au | studio@chc.com.au | 03 9419 4340

Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Basement 1 Floor Plan

16.07.2025

TP101 -



ESD Notes - FURTHER DETAILS AS PER SMP DATED MAY 2025

General:

- The development will include the facilities for electric vehicle charging equipment with appropriate signage and charging infrastructure installed.
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- Heating and cooling for retail space and conditioned common areas will be provided by energy efficient air conditioning.
- Each dwelling will be provided with energy efficient split system air conditioners (min. ZERL efficiency of 1.5 Stars for Heating and 2 stars for Cooling).
-The project will not be connected to gas supply, and all dwellings will be provided with efficient electric induction cooktops.
-Energy consumption from artificial lighting throughout the development will be reduced by using LED lighting and by optimising daylight diffusion. For non-residential area, the maximum illumination power density (W/m2) in at least 90% of the area will meet the requirements in Table J7D3a of the NCC 2022 Vol 1.
-Energy efficient lifts will be specified that include measure to specifically reduce stand-by consumption.
-All windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions outlines in Section J5 of the NCC 2022.
-Min 58.4kW solar PV systems oriented to the north assuming an inclination of 2.0° will be installed, producing 76,098kWh⁻¹ of green electricity per year.
- WELLS star ratings will be:
  - Kitchen taps: Min. 6 star;
  - Bathroom taps: 6 star;
  - Dishwasher: 5 Star
  - Toilets: 4 Star
  - Showers: ≤ 7.5L/min (4 star)
- Landscaping in garden beds and terrace planters boxes will be drought tolerant and will include mulch and soil wetting agents to reduce the potable water.
-No VOCs (Volatile Organic Compounds) will be selected.
- Tap and floor waste/drain is to be provided on every balcony/terrace.
- The Fire test system will not expel potable water for testing, or a minimum of 80% of test water from fire sprinkler systems to be captured for reuse. A sprinkler system will not be installed in the townhouse buildings; therefore, the above-mentioned requirement is not applicable to townhouse buildings.
-All dwellings will be fitted with double glazed windows, and/or double glazed low-e windows.

Apartments:

- Average energy rating of apartments to be no less than 7.0 stars, with no apartment achieving less than 6.0 stars. All apartments are required to meet the ABCB NatHERS heating and cooling load requirements, and the cooling load requirements of <22MJ/m² for climate zone 60 Tullamarine.
- Hot water will be provided via efficient centralised heat pump hot water system.
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- All townhouses must achieve an area weighted average star rating of 7.0 and are required to meet ABCB NatHERS heating and cooling requirements.
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AL Facade Markup
Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

- 6mm or 6/12/6mm IGU
- 8mm or 6/12/8mm IGU
- 11.52mm or 6/12/11.52mm IGU

External Lightweight Wall Construction

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General Notes

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Windows to contain acoustic seals which shall be Q-lon seals or equal. Mohair seals are not acceptable

Awning windows and hinged doors shall be installed with multi-point locking system.

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TOWN PLANNING

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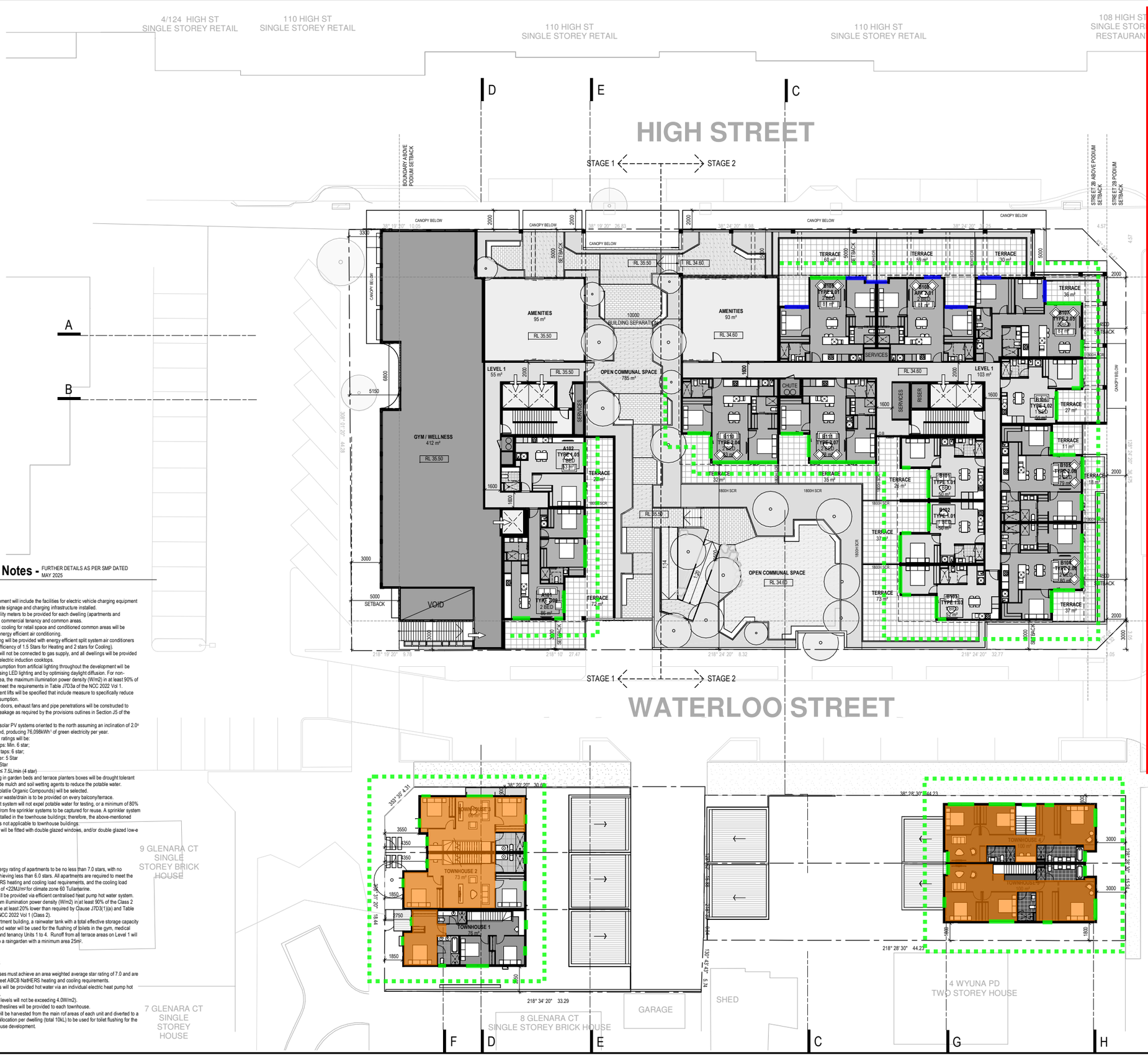
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Ground Floor Plan

16.07.2025

TP102 -



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AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

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External Lightweight Roof Construction

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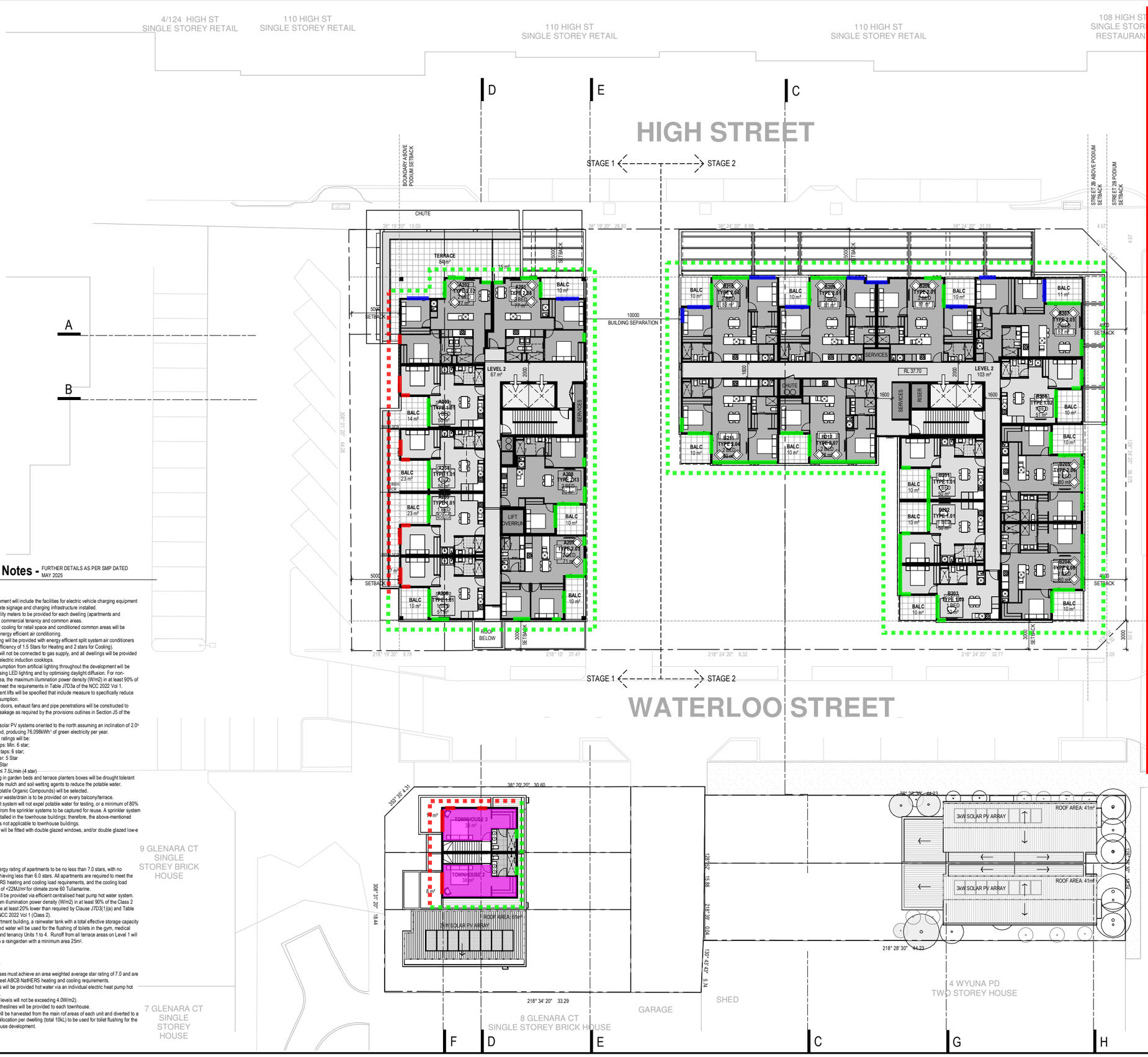
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 1 Floor Plan | TP103 -

16.07.2025



ESD Notes - FURTHER DETAILS AS PER SMP DATED MAY 2025

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AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

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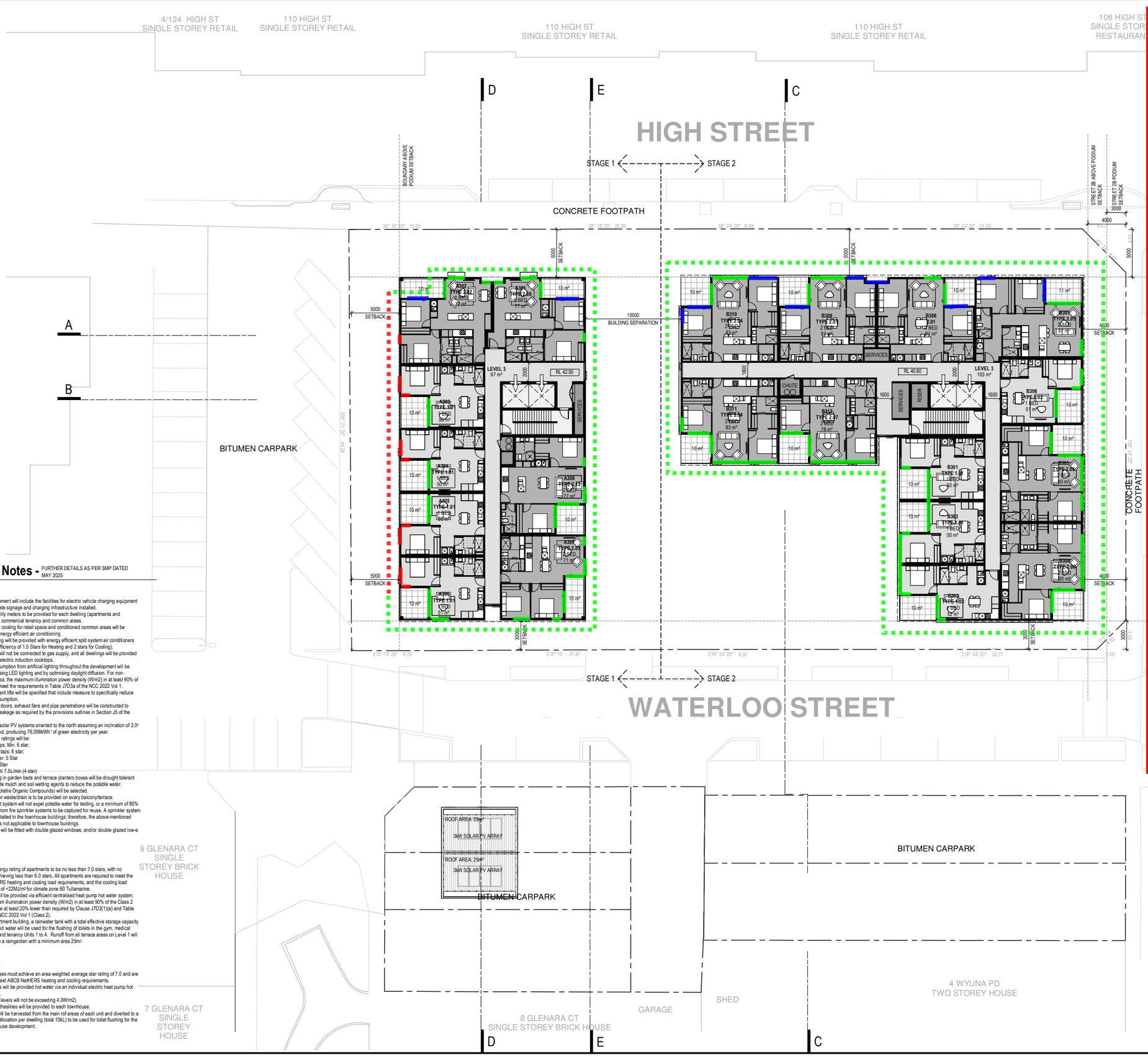
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 2 Floor Plan

16.07.2025

TP104 -



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AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

- 6mm or 6/12/6mm IGU
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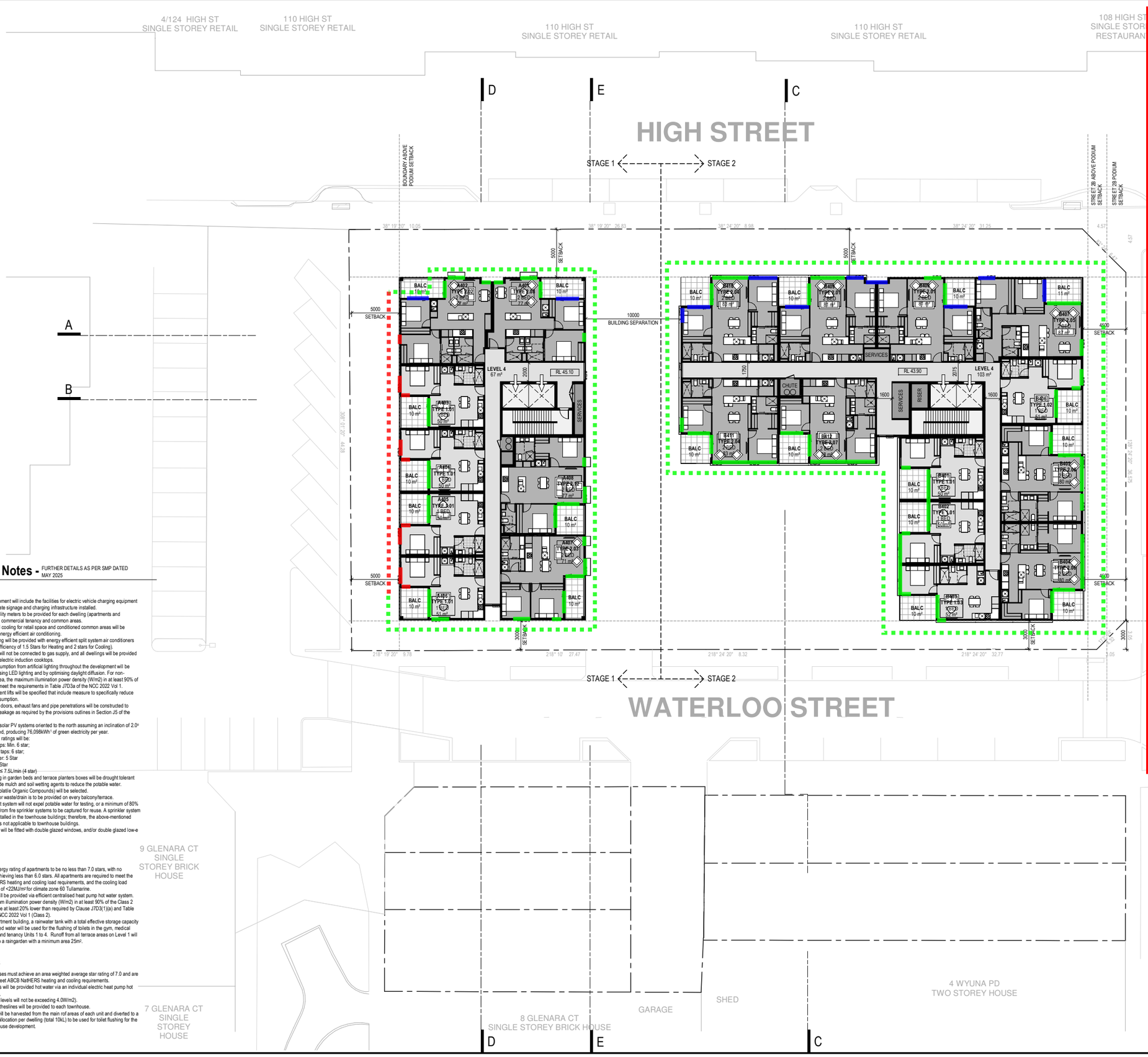
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

TOWN PLANNING

Level 3 Floor Plan
16.07.2025

TP105 -



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AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

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Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 4 Floor Plan | TP106 -

16.07.2025

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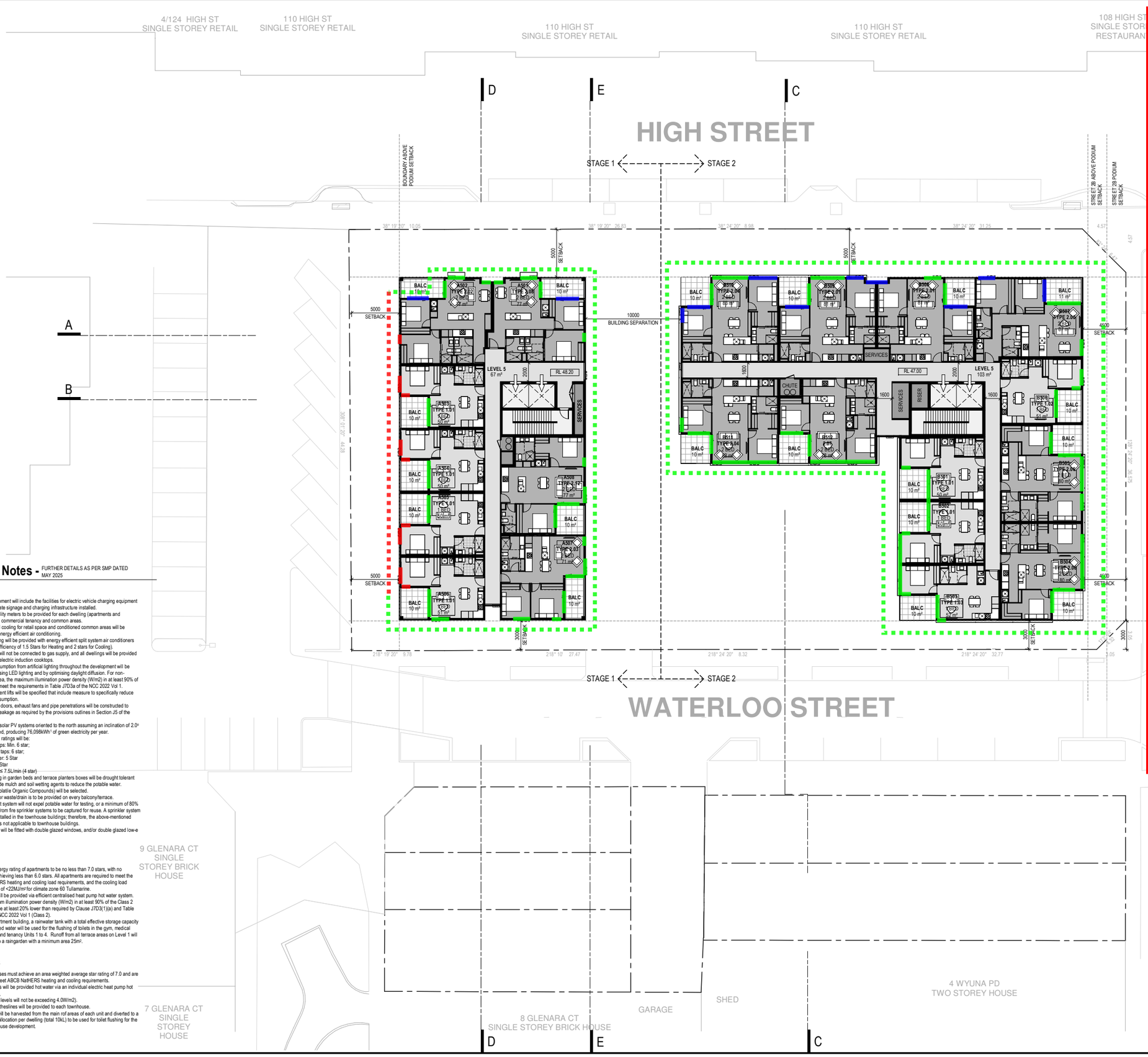

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-Min 58.4kW solar PV systems oriented to the north assuming an inclination of 2.0° will be installed, producing 76,098kWh^{-1} of green electricity per year.
- WELLS star ratings will be:
  - Kitchen taps: Min. 6 star;
  - Bathroom taps: 6 star;
  - Dishwasher: 5 Star
  - Toilets: 4 Star
  - Showers: ≤ 7.5L/min (4 star)
- Landscaping in garden beds and terrace planters boxes will be drought tolerant and will include mulch and soil wetting agents to reduce the potable water.
-No VOCs (Volatile Organic Compounds) will be selected.
- Tap and floor waste/drain is to be provided on every balcony/terrace.
- The Fire test system will not expel potable water for testing, or a minimum of 80% of test water from fire sprinkler systems to be captured for reuse. A sprinkler system will not be installed in the townhouse buildings; therefore, the above-mentioned requirement is not applicable to townhouse buildings.
-All dwellings will be fitted with double glazed windows, and/or double glazed low-e windows.

Apartments:

- Average energy rating of apartments to be no less than 7.0 stars, with no apartment achieving less than 6.0 stars. All apartments are required to meet the ABCB NatHERS heating and cooling load requirements, and the cooling load requirements of <22MJ/m² for climate zone 60 Tullamarine.
- Hot water will be provided via efficient centralised heat pump hot water system.
- The maximum illumination power density (W/m2) in at least 90% of the Class 2 building will be at least 20% lower than required by Clause J7D3(1)(a) and Table J6.2a of the NCC 2022 Vol 1 (Class 2).
- For the apartment building, a rainwater tank with a total effective storage capacity of 40kL. Stored water will be used for the flushing of toilets in the gym, medical centre, cafe and tenancy Units 1 to 4. Runoff from all terrace areas on Level 1 will be diverted to a raingarden with a minimum area 25m².

Townhouses:

- All townhouses must achieve an area weighted average star rating of 7.0 and are required to meet ABCB NatHERS heating and cooling requirements.
- Townhouses will be provided hot water via an individual electric heat pump hot water system.
- The lighting levels will not be exceeding 4.0W/m2).
- External clotheslines will be provided to each townhouse.
- Rainwater will be harvested from the main roof areas of each unit and diverted to a 2,000L tank allocation per dwelling (total 10kL) to be used for toilet flushing for the entire townhouse development.

AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

- 6mm or 6/12/6mm IGU
- 8mm or 6/12/8mm IGU
- 11.52mm or 6/12/11.52mm IGU

External Lightweight Wall Construction

- 1x9mm FC sheet / 90mm stud with 75mm 11kg/m3 wool insulation / 1x13mm Plasterboard
- 1x9mm FC sheet / 90mm stud with 75mm 11kg/m3 wool insulation / 2x13mm Plasterboard

External Lightweight Roof Construction

- Min 0.48mm BMT sheet metal roof with sarking / Min 300mm ceiling void with 75mm 11kg/m3 wool insulation / 1x13mm Plasterboard
- Min 0.48mm BMT sheet metal roof with sarking / Min 300mm ceiling void with 75mm 11kg/m3 wool insulation / 2x13mm Plasterboard

General Notes

Apartment external walls that incorporate concrete / masonry / blockwork will not require further treatments acoustically.

Windows to contain acoustic seals which shall be Q-lon seals or equal. Mohair seals are not acceptable

Awning windows and hinged doors shall be installed with multi-point locking system.

Bi-parting sliding doors not acceptable acoustically.

Roof constructions to be of concrete unless stated otherwise.

TOWN PLANNING

Clarke Hopkins Clarke

High Street, Belmont Apartments
107-123 HIGH STREET, BELMONT VIC 3216
Project No. 230114

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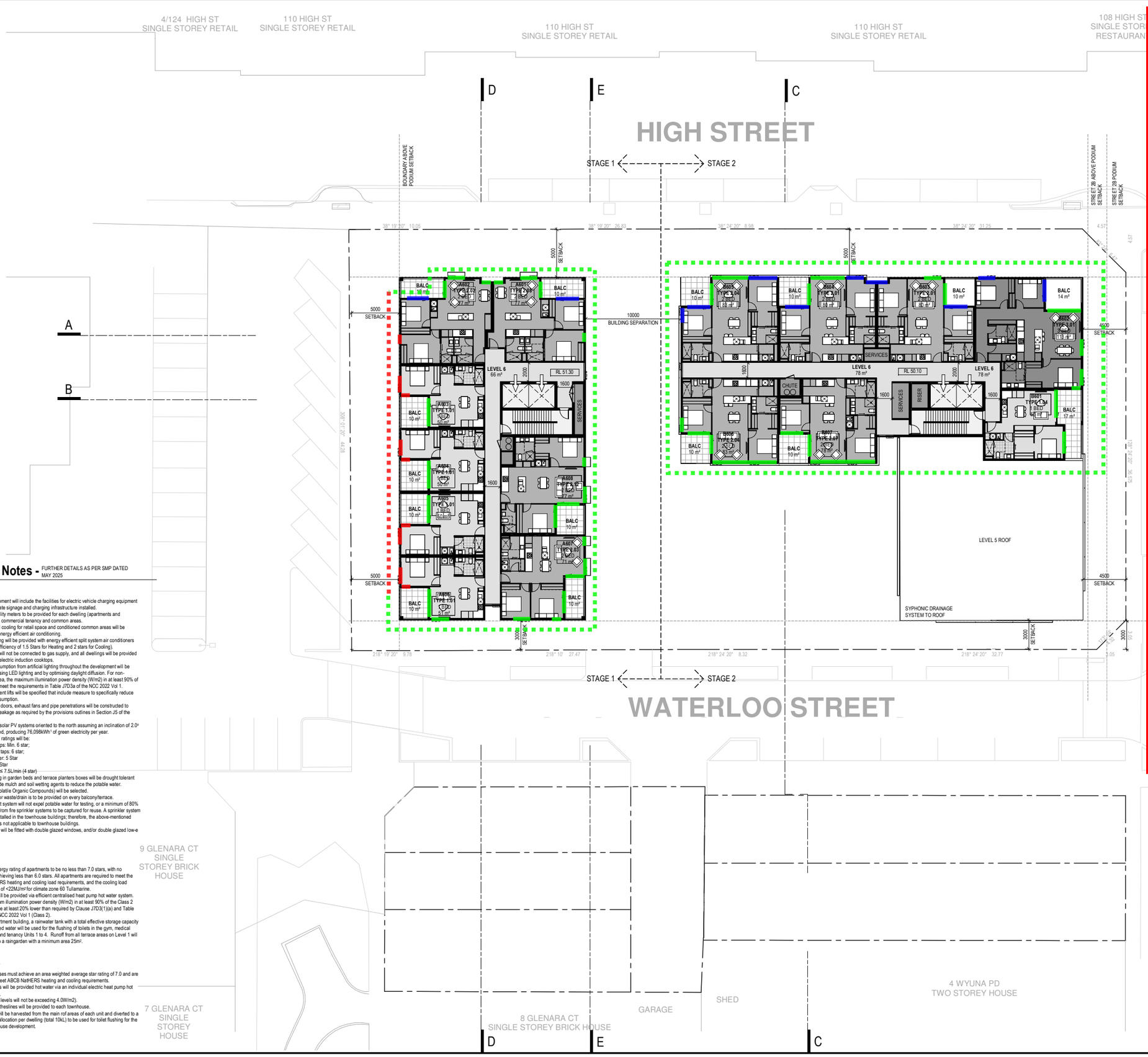
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 5 Floor Plan

16.07.2025

TP107 -



ESD Notes - FURTHER DETAILS AS PER SMP DATED MAY 2025

General:

- The development will include the facilities for electric vehicle charging equipment with appropriate signage and charging infrastructure installed.
- Seperate utility meters to be provided for each dwelling (apartments and townhouses), commercial tenancy and common areas.
- Heating and cooling for retail space and conditioned common areas will be provided by energy efficient air conditioning.
- Each dwelling will be provided with energy efficient split system air conditioners (min. ZERL efficiency of 1.5 Stars for Heating and 2 stars for Cooling).
-The project will not be connected to gas supply, and all dwellings will be provided with efficient electric induction cooktops.
-Energy consumption from artificial lighting throughout the development will be reduced by using LED lighting and by optimising daylight diffusion. For non-residential area, the maximum illumination power density (W/m2) in at least 90% of the area will meet the requirements in Table J7D3a of the NCC 2022 Vol 1.
-Energy efficient lifts will be specified that include measure to specifically reduce stand-by consumption.
-All windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions outlines in Section J5 of the NCC 2022.
-Min 58.4kW solar PV systems oriented to the north assuming an inclination of 20° will be installed, producing 76,098kWh^{-1} of green electricity per year.
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  - Showers: ≤ 7.5L/min (4 star)
- Landscaping in garden beds and terrace planters boxes will be drought tolerant and will include mulch and soil wetting agents to reduce the potable water.
-No VOCs (Volatile Organic Compounds) will be selected.
- Tap and floor waste/drain is to be provided on every balcony/terrace.
- The Fire test system will not expel potable water for testing, or a minimum of 80% of test water from fire sprinkler systems to be captured for reuse. A sprinkler system will not be installed in the townhouse buildings; therefore, the above-mentioned requirement is not applicable to townhouse buildings.
-All dwellings will be fitted with double glazed windows, and/or double glazed low-e windows.

Apartments:

- Average energy rating of apartments to be no less than 7.0 stars, with no apartment achieving less than 6.0 stars. All apartments are required to meet the ABCB NatHERS heating and cooling load requirements, and the cooling load requirements of <22MJ/m² for climate zone 60 Tullamarine.
- Hot water will be provided via efficient centralised heat pump hot water system.
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Townhouses:

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AL Facade Markup

Date: 23/01/2026
Rev: 0

ACOUSTIC LOGIC

Glazing Legend

- 6mm or 6/12/6mm IGU
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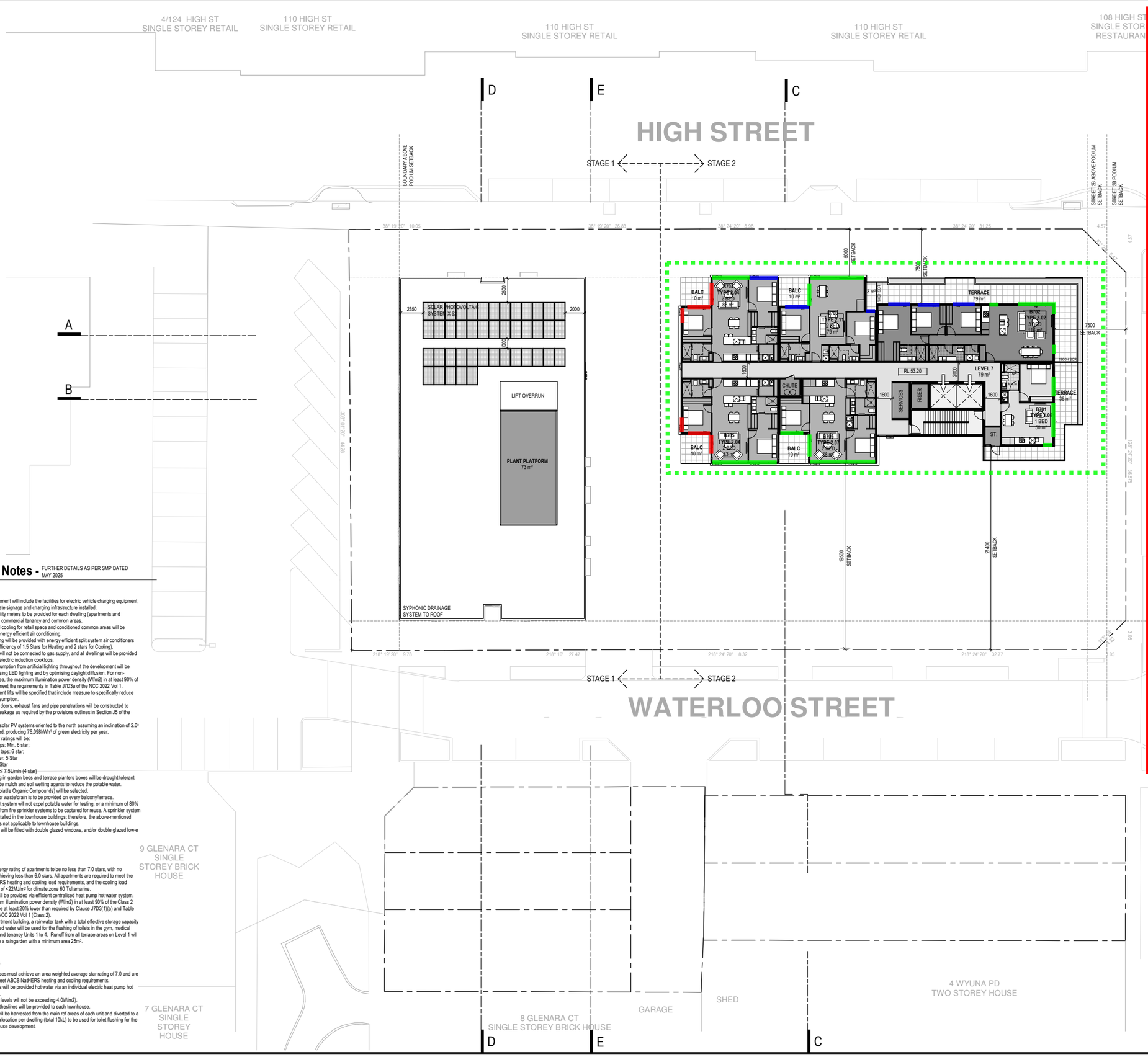
Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 6 Floor Plan

16.07.2025

TP108 -



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General:

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AL Facade Markup

Date: 23/01/2026
Rev: 0

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Scale 1:200 @ A1
Scale 1:400 @ A3
0 10m

Level 7 Floor Plan

16.07.2025

TP109 -